

ABSTRACT

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- 1 Therapies for the treatment of a variety of central nervous system injuries including acute or chronic spinal cord injury, traumatic brain injury, and white matter stroke involve the administration of rho protein inhibitors to promote axon regeneration. Local administration is employed in typical embodiments, and
- 5 this may include injection of a recombinant virus that expresses an inhibitor. In one embodiment, the inhibitor is *C. botulinum* C3 exoenzyme or a chimeric *C. botulinum* C2/C3 construct expressed in a replication-deficient adeno, adeno-associated, or herpes virus.



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<b>(21) International Application Number:</b> PCT/US98/16794 <b>(22) International Filing Date:</b> 12 August 1998 (12.08.98)  <b>(30) Priority Data:</b> 60/055,268 13 August 1997 (13.08.97) US  <b>(71) Applicant (for all designated States except US):</b> YALE UNIVERSITY [US/US]; Office of Cooperative Research, 155 Whitney Avenue, New Haven, CT 06520-8336 (US).  <b>(72) Inventor; and</b> <b>(75) Inventor/Applicant (for US only):</b> STRITTMATTER, Stephen, M. [US/US]; 26 Pleasant Valley Road, Clinton, CT 06413 (US).  <b>(74) Agent:</b> KRINSKY, Mary, M.; 88 Prospect Street, New Haven, CT 06511-3797 (US).	<b>(81) Designated States:</b> AU, CA, JP, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
<b>(54) Title:</b> CENTRAL NERVOUS SYSTEM AXON REGENERATION  <b>(57) Abstract</b>  Therapies for the treatment of a variety of central nervous system injuries including acute or chronic spinal cord injury, traumatic brain injury, and white matter stroke involve the administration of rho protein inhibitors to promote axon regeneration. Local administration is employed in typical embodiments, and this may include injection of a recombinant virus that expresses an inhibitor. In one embodiment, the inhibitor is <i>C. botulinum</i> C3 exoenzyme or a chimeric <i>C. botulinum</i> C2/C3 construct expressed in a replication-deficient adeno, adeno-associated, or herpes virus.		